

Temporal relationships between psychiatric disorders and dementia

#13539

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KEY TAKEAWAY

Psychiatric disorders were associated with higher dementia rates across diagnostic groups. Associations were strongest for severe mental illness and later-life psychiatric diagnoses. Patterns suggest both possible prodromal dementia and longer-term vulnerability.

INTRODUCTION

- Mental health conditions associated with later dementia.
- Evidence beyond depression in limited, and causality and underlying mechanisms remain unclear.

- Aim
- Investigate associations with dementia by age and time since psychiatric diagnosis.
 - Examine variation by sex and baseline comorbidities.

STUDY DESIGN

Matched cohort study design

- Born 1932–1985.
- Psychiatric disorder cases matched by birth year to comparisons without psychiatric disorder on same date.
- Followed until all-cause dementia, death, emigration or 31st Dec 2021.
- Stratified Cox models; Fine and Gray models - competing mortality.

COHORT & EXPOSURES

3,345,970

Total cohort

816,065

Psychiatric disorder

2,529,905

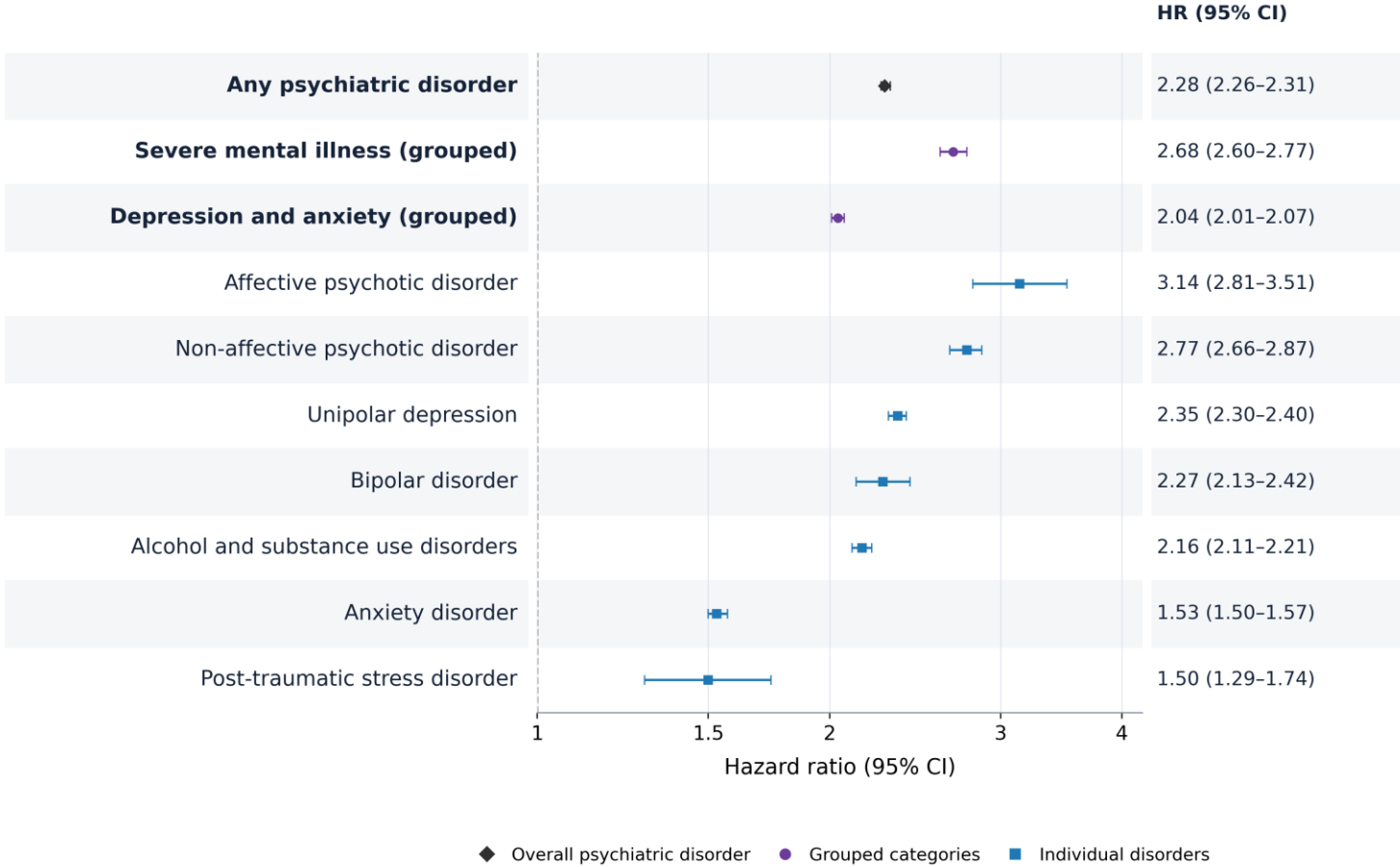
Matched comparisons

- Psychiatric conditions examined
- Depression, anxiety and PTSD
 - Psychotic disorders and bipolar disorder
 - Alcohol and substance use disorder
- Most common psychiatric diagnoses
- Anxiety, somatoform and dissociative disorders: 29.8%
 - Alcohol and substance use disorder: 29.5%
 - Unipolar depression: 28.9%

Median follow-up: 13.2 years (IQR: 6.8–20.1)
Median age-at-entry: 39.6 years

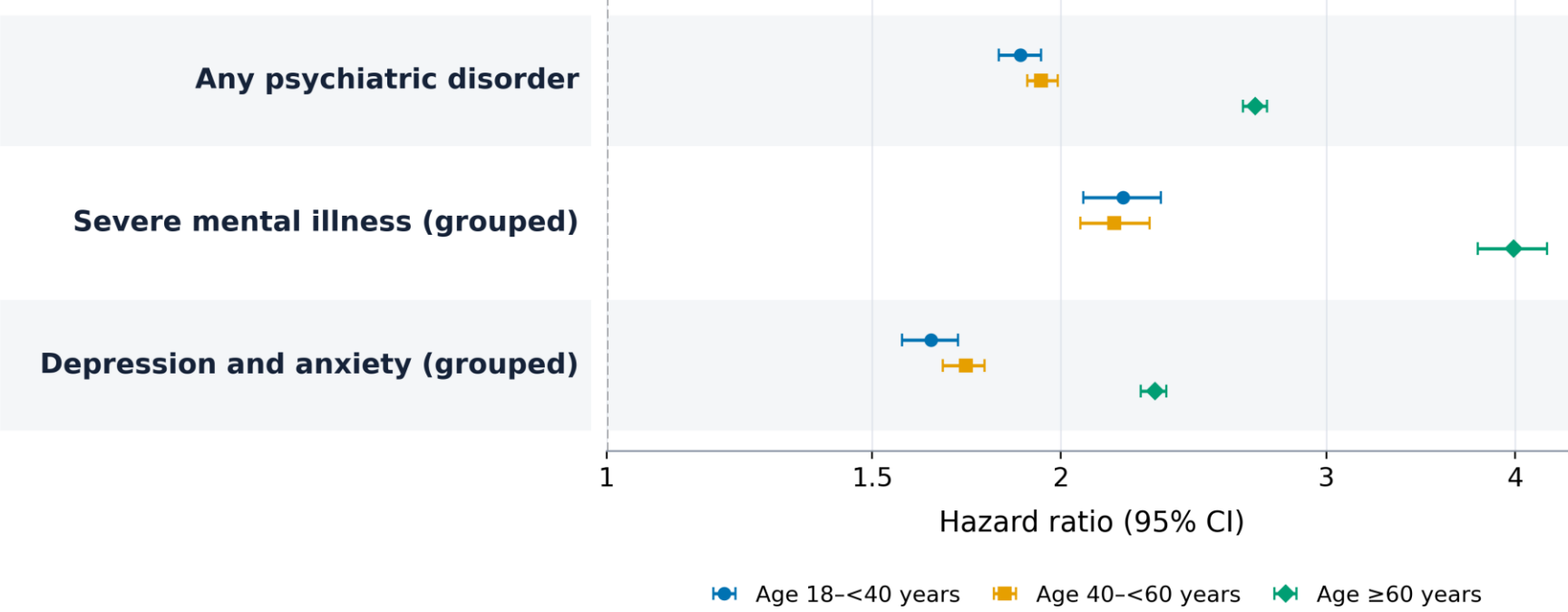
RESULTS

Main finding 1: psychiatric disorders associated with higher dementia rates



Overall dementia rates were elevated across all psychiatric disorder groups. Strongest overall associations were found for severe mental illness, particularly psychotic disorders.

Main finding 2: associations varied by age at diagnosis

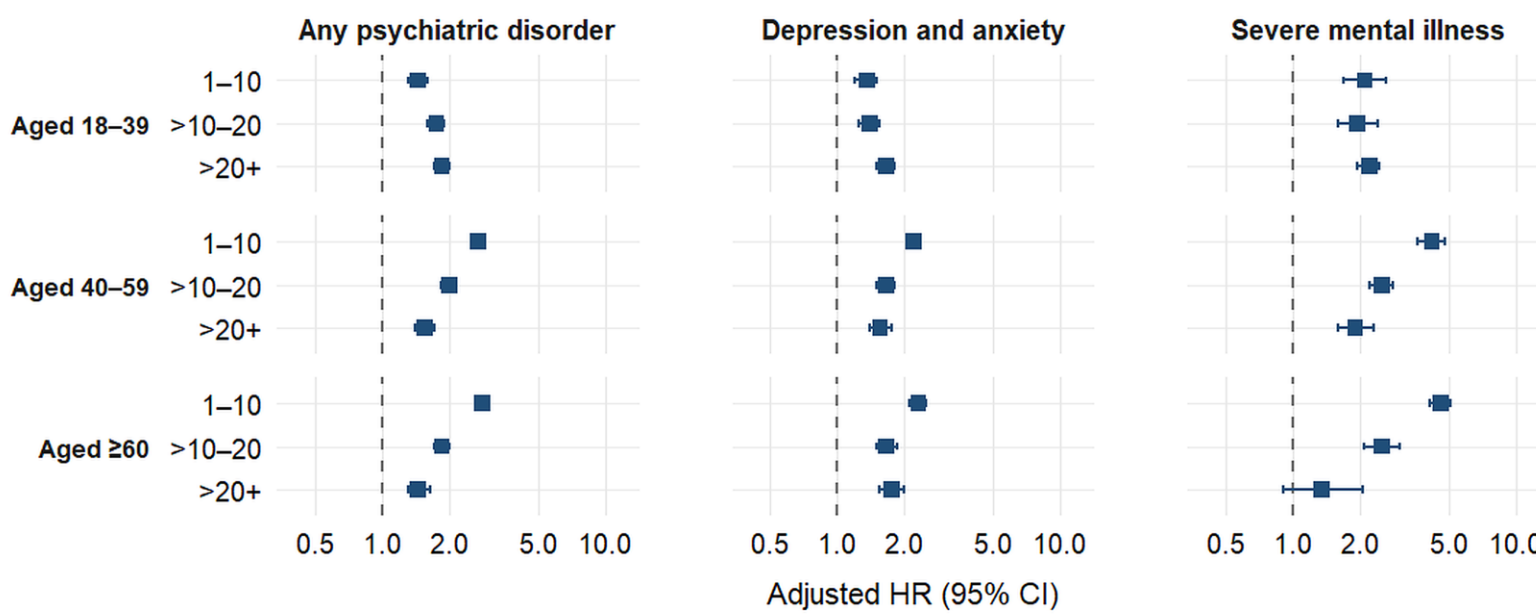


Associations were present across age-at-diagnosis groups and were generally strongest for later-life psychiatric diagnoses, particularly for severe mental illness.

- Subgroup and sensitivity analyses
- Associations found in men and women; slightly stronger in men.
 - Stronger associations with baseline cardiovascular disease and diabetes.
 - Stronger associations with vascular dementia diagnosis.
 - Associations remained in competing risk models.

TEMPORALITY & INTERPRETATION

Main finding 3: temporality supports multiple explanations



Short-term pattern

Associations strongest close to diagnosis for mid- and late-life groups — may indicate prodromal dementia, diagnostic overlap or increased clinical contact.

Long-term pattern

Elevated rates persisted over longer follow-up, suggesting reverse causality alone is unlikely to fully explain the associations.

MEANING OF FINDINGS

Psychiatric disorders may be both early markers of neurodegenerative disease and indicators of longer-term vulnerability to dementia.

- Findings highlight brain health inequalities across psychiatric diagnoses.
- New psychiatric symptoms in later life, particularly severe mental illness, may warrant cognitive and functional monitoring.
- Further research should examine possible cardiometabolic, inflammatory, stress-related, social and genetic pathways.

STRENGTHS, LIMITATIONS & CONTACT

- Strengths
- Population-based cohort
 - Temporal analyses and long follow-up
 - Sensitivity analyses and competing risks models
- Limitations
- Register-based ascertainment
 - Changes in recording over time
 - Possible residual confounding
 - Potential detection bias

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